

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims.

**LISTING OF CLAIMS:**

Claims 1-39. Cancelled.

Claim 40. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment, which recognizes a 150 kDA *T. equigenitalis* protein.

Claim 41. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes *T. equigenitalis* proteins selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 42. (Previously Presented) An isolated monoclonal antibody obtained by a process comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized against an inactivated strain of the species *T. equigenitalis* or extract(s) of such a strain, cloning and selecting according to the capacity of their culture supernatant to recognize a 150 kDA *T. equigenitalis* protein, recovering the required monoclonal antibody, and optionally purifying said monoclonal antibody.

Claim 43. (Previously Presented) A method of obtaining a monoclonal antibody according to claim 40, comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of a strain of the species *T. equigenitalis* or extract(s) from such a strain, screening hybridomas whose culture supernatants exhibit a positive reaction with a 150 kDA *T. equigenitalis* protein or a fragment thereof, selecting by cloning the hybridomas with respect to their reactivity, in relation to *T. equigenitalis*, recovering the monoclonal antibody, and optionally purifying said monoclonal antibody.

Claim 44. (Previously Presented) A strain of hybridoma, which secretes a monoclonal antibody according to claim 40.

Claim 45.

(Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of a monoclonal antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof according to claim 40, under conditions permitting a reaction of the antigen-antibody type, and detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen-antibody type,~~ wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 46.

(Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof according to claim 40, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen-antibody type~~

in said sample between the antibody or fragment of (a)  
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis*  
infection.

Claim 47.

(Previously Presented) The method according to claim 45, further  
comprising blocking the non antigen-antibody reactions.

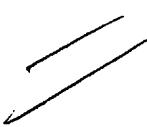
Claim 48.

(Previously Presented) A kit for application of a method of  
identification of a bacterium of the species *Taylorella equigenitalis*  
(*T. equigenitalis*) in a specimen or in a culture comprising:

a monoclonal antibody or fragment according to claim 40,  
a reagent for detecting the intended immunologic reaction,  
optionally, a reagent for blocking the non antigen-antibody  
reactions, and

instructions for use.

Claim 49. Cancelled.

Claim 50. (Previously Presented) A kit according to claim 48, wherein said  
reagent for carrying out the intended immunologic reaction is selected  
from the group consisting of markers and buffers.

Claim 51. (Previously Presented) A kit according to claim 48, wherein a reagent for blocking the non antigenic-antibody reaction is included and said reagent is mouse serum.

Claim 52. (Previously Presented) The method according to claim 47, wherein the non antigen-antibody reaction is blocked by saturation of the specimen obtained by means of a serum from which anti-*T. equigenitalis* antibodies have been removed.

Claim 53. (Previously Presented) The method according to claim 46, further comprising blocking the non antigen-antibody reactions.

Claim 54. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 55. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.

Claim 56. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

Claim 57. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 40, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

Claim 58. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with at least one antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a *T. equigenitalis* protein selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 59. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

Claim 60. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 120 kDa *T. equigenitalis* protein.

Claim 61. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 52.7 kDa *T. equigenitalis* protein.

Claim 62. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')<sup>2</sup> fragment according to claim 42, in combination with an antibody or Fv, Fab or F(ab')<sup>2</sup> fragment thereof which recognizes a 22 (LPS) kDa *T. equigenitalis* protein.

Claim 63. (Previously Presented) A strain of hybridoma, which secretes the monoclonal antibody according to claim 42.

Claim 64. (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective

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*Combination*  
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quantity of the monoclonal antibodies or Fv, Fab or

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$F(ab')^2$  fragments thereof according to claim 41, under  
conditions permitting a reaction of the antigen-antibody  
type, and

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from claim 69*

detecting any antigen/antibody type reaction product formed  
~~product formed in a reaction of the antigen-antibody type,~~

wherein said product is indicative of the presence of a bacterium of the  
species *T. equigenitalis*.

*Claim 65.*

(Currently Amended) A method of identification of a bacterium of the  
species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a  
culture comprising:

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bringing the specimen or the culture to be analyzed, which may  
contain *T. equigenitalis*, into contact with an effective  
quantity of the monoclonal antibody or Fv, Fab or  $F(ab')^2$   
fragment thereof according to claim 42, under conditions  
permitting a reaction of the antigen-antibody type, and  
detecting any antigen/antibody type reaction product formed  
~~product formed in a reaction of the antigen-antibody type,~~

wherein said product is indicative of the presence of a bacterium of the  
species *T. equigenitalis*.

Claim 66.

(Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof according to claim 54, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed  
~~product formed in a reaction of the antigen-antibody type,~~

wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

Claim 67.

(Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')<sup>2</sup> fragments thereof according to claim 58, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed  
product formed in a reaction of the antigen-antibody type,  
wherein said product is indicative of the presence of a bacterium of the  
species *T. equigenitalis*.

*ND*  
Claim 68.

(Currently Amended) A method of identification of a bacterium of the  
species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a  
culture comprising:

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bringing the specimen or the culture to be analyzed, which may  
contain *T. equigenitalis*, into contact with an effective  
quantity of the monoclonal antibodies or Fv, Fab or  
 $F(ab')^2$  fragments thereof according to claim 59, under  
conditions permitting a reaction of the antigen-antibody  
type, and

detecting any antigen/antibody type reaction product formed  
product formed in a reaction of the antigen-antibody type,

wherein said product is indicative of the presence of a bacterium of the  
species *T. equigenitalis*.

*ND*  
Claim 69.

(Currently Amended) A method of diagnosis of an infection by  
*Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof  
according to claim 41, into contact with a biological

sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any antigen/antibody type reaction product formed product formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 70.

(Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 42, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any antigen/antibody type reaction product formed product formed in a reaction of the antigen-antibody type in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 71.

(Currently Amended) A method of diagnosis of an infection by

*Taylorella equigenitalis* (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof according to claim 54, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and
- (b) detecting any antigen/antibody type reaction product formed ~~product formed in a reaction of the antigen antibody type~~ in said sample between the antibody or fragment of (a) and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 72.

(Currently Amended) A method of diagnosis of an infection by

*Taylorella equigenitalis* (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof according to claim 58, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

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(b) detecting any antigen/antibody type reaction product formed  
~~product formed in a reaction of the antigen antibody type~~  
in said sample between the antibody or fragment of (a)  
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 73.

(Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 59, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any antigen/antibody type reaction product formed  
~~product formed in a reaction of the antigen antibody type~~  
in said sample between the antibody or fragment of (a)  
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

Claim 74.

(Currently Amended) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

~~the a monoclonal antibody or fragment antibodies or fragments~~  
according to claim 41,  
reagents for detecting the intended immunologic reaction,  
optionally, reagents for blocking the non antigen-antibody reactions, and  
instructions for use.

Claim 75.

(Previously Presented) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

~~a monoclonal antibody or fragment according to claim 42,~~  
reagents for detecting the intended immunologic reaction,  
optionally, reagents for blocking the non antigen-antibody reactions, and  
instructions for use.

Claim 76.

(Currently Amended) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

~~the a monoclonal antibody or fragment antibodies or fragments~~  
according to claim 54,  
reagents for detecting the intended immunologic reaction,

optionally, reagents for blocking the non antigen-antibody reactions, and instructions for use.

Claim 77.

(Currently Amended) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the a monoclonal antibody or fragment antibodies or fragments according to claim 58,  
reagents for detecting the intended immunologic reaction,  
optionally, reagents for blocking the non antigen-antibody reactions, and

instructions for use.

Claim 78.

(Currently Amended) A kit for application of a method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

the a monoclonal antibody or fragment antibodies or fragments according to claim 59,  
reagents, for detecting the intended immunologic reaction,  
optionally, reagents for blocking the non antigen-antibody reactions, and  
instructions for use.

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Claims 79-83 Cancelled.